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ABSTRACT

This guide contains a selected list of urban, environmental, and social problem gaming/simulations. The games included in the list are suitable for a variety of age groups and educational purposes. The games are divided into categories based on the group that developed the game or simulation. The categories include games/simulations developed or distributed by Gamers at the University of Michigan; Academic Games Associates, Inc.; Berkeley Gaming Project; Instructional Simulations, Inc.; Psychology Today; Urbandyne; Western Behavioral Sciences Institute; and others. Each listed game/simulation is accompanied by an identifying statement, the developers of the game, the number of players, game time, and the source of the game. An appendix is included. (TK)



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EXTENSION GAMING SERVICE

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A SELECTED LIST

OF URBAN, ENVIRONMENTAL AND SOCIAL PROBLEM

GAMING/SIMULATIONS

We do not intend this list to be definitive, but hope it will be useful as a starting point for obtaining further information about specific games. We have tried to omit gaming/simulations not considered useful for some educational purpose, as well as those which do not focus on one or another "social concern."

We often are asked which age group a particular game is best suited for. One of the beauties of games is that they are, as the advertiser likes to say, "suitable for all ages"--at least junior high and up. In fact, we find that young people play more easily and more fully, since they are less inhibited and more willing to experiment.

Nevertheless, we have omitted from the list those games designed principally for use within the classroom situation and have appended a list (incomplete) of sources of brochures on games specifically for elementary and high school people. THE APPENDIX ALSO CONTAINS OTHER SOURCES OF GAMING INFORMATION.

*An Asterisk before a game indicates that more detailed information about it may be obtained from the Extension Gaming Service. Please consult the Game Description Price List for cost, if any. Further information about other games should be requested from the distributor and/or game developer.

Barbara Steinwachs
Extension Gaming Service
(313) 763-1010

July, 1974

THE EXTENSION GAMING SERVICE provides consultation on and assistance in using and designing serious games and simulations for professional, educational, community, and civic groups. Our immediate staff includes Barbara Steinwachs, Ansell Horn, Ken Smith, and Len Suransky--but we frequently draw upon the expertise of other University of Michigan gamers.

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Turn-On

I

I. DEVELOPED BY GAMERS AT THE UNIVERSITY OF MICHIGAN

*CLUG (Community Land Use Game)
urban and regional economics

Developed by: Allan G. Feldt
Players: about 15
Time: 6 hours or, preferably,
longer.

Player's Manual (\$4.95) with basic
model, experiments (variations), and
readings; and Instructor's Manual
(gratis) with simple playing pieces
published 1972 by:
The Free Press
Department FNY
Riverside, NJ 08075

Complete Kit (\$75) available from:
Urbex Affiliates, Inc.
P.O. Box 2198
Ann Arbor, MI 48106
(313) 971-0919

COMPACTS (Community Planning and
Action Simulation)
urban social service system

Developed by: Armand Laufer
Players: 20-60
Time: 3 hr. - 3 days

Complete Kit (\$85) available from:
Gamed Simulations, Inc. (GSI)
FDR Station
Box 1747
New York, NY 10022

*The End of the Line

The difficulties of growing old

Developed by: Frederick Goodman
Players: 25-50
Time: 3 - 5 hrs.

Not yet available in a "package",
but runs of the game may be arranged
through:
Extension Gaming Service
412 Maynard Street
Ann Arbor, MI 48104
(313) 763-1010

Complete manual (with "make-your-own-
materials" section) to be published
in near future by:

The Institute of Gerontology
University of Michigan
543 Church Street
Ann Arbor, MI 48104

Complete Kit will be available shortly
from:

Urbex Affiliates
P.O. Box 2198
Ann Arbor, MI 48106

Extinction

Evolution and survival or
extinction of species

Developed by: Stephen P. Hubbell
Players: 3-4
Time: 3 hrs. or more

Complete Kit (\$11) available from:
Sinauer Associates, Inc.
20 Second Street
Stamford, CT 06905

*The Helping Hand Strikes Again

The problems arising between people in need of help and those groups who attempt to help them. The game can be adapted with some effort to specific helper-helpee relationships.

Developed by: Frederick Goodman
Players: 25-50
Time: 4 or more hours

*M.E.T.R.O. - APEX: See Section IX.

*Metropolis: See Section IX.

*Policy Negotiations

A priming game on allocation of influence in the decision-making process.

N.B. Modification (To subject matter of interest to group playing) integral to game

Developed by: Frederick Goodman
Players: 6 or more (20-35 optimum)
Time: Priming Game: 2-3 hrs.
Re-design Time: 1-many hrs.
Re-play Time: 2-3 hrs.

*Policyplan

A general-purpose planning model. A number of versions currently exist: "Housingplan," "Drugplan," "Actionplan" (community development).

PPOM (Population Policies Orientation Model)

State and national planning with respect to economic, demographic, social, and political development

In process of development by:

Allan G. Feldt

Players: 15-30 optimum

Time: 4-6 hrs.

Not yet available in a "package", but runs of the game may be arranged through:

Extension Gaming Service
412 Maynard Street
Ann Arbor, MI 48104
(313) 763-1010

Complete Kit (\$75) available from:

Urbex Affiliates, Inc.
P.O. Box 2198
Ann Arbor, MI 48106
(313) 971-0919

See Appendix, Item X, for information on Urban Games, four adaptations by Margaret Warne Monroe.

For information about the model or about a game run, contact:

Larry C. Coppard
School of Education
University of Michigan
Ann Arbor, MI 48104

A computer program for use on the IBM 360 and Univac 1108 is available.

Not yet available

*Runage-ing

A priming game structure for adaptation to virtually any content area

Developed by: Ansell Horn and Fred Goodman

Players: 2 or more (no limit)

Time: 2 hr. or more

Complete instructions (\$3) available from:

Extension Gaming Service
412 Maynard Street
Ann Arbor, MI 48104

*SIMSOC (Simulated Society)

The establishment and maintenance of social order

Developed by: William A. Gamson

Players: 20-50

Time: 6-8 1-hr. sessions

Players Manual (\$4.95) and Instructors Manual (gratis) available from:

The Free Press
Department FNY
Riverside, NY 08075
(forms included)

*They Shoot Marbles, Don't They?

Societal analysis

Developed by: Frederick Goodman and Robert Parnes

Players: 8-50 (20-30 optimum)

Time: 2½ hrs. or more

Directions (\$2) available from:

Extension Gaming Service
412 Maynard Street
Ann Arbor, MI 48104

Complete Kit (\$40) available from:

Urbex Affiliates, Inc.
P. O. Box 2198
Ann Arbor, MI 48106
(313) 971-0919

Turn-On - see below.

*W.A.L.R.U.S. (Water and Land Resource Utilization Simulation)

Impact of public and private decisions on water pollution

Developed by: Allan G. Feldt & David Moses

Players: 15-30 optimum

Time: 5 hrs.

Directions (\$1) available from:

Sea Grant Advisory Services
University of Michigan
1101 N. University
Ann Arbor, MI 48104

Complete Kit (\$75) available from:

Urbex Affiliates, Inc.
P.O. Box 2198
Ann Arbor, MI 48106

*WARD (Community Development Model)

A simulated case-study on community development and housing improvement

Developed by: Marilyn Miller and Larry Coppard, with Carl Rinne

Players: 20-50

Time: several 3-hr. sessions

For further information about the game contact:

Stapleton House
1831 Lake Lila Drive #B-6
Ann Arbor, MI 48105

The game exists in two versions at present.

For facility in updating information during play, a computerized listing of the major portion of the data base is available.

*Turn-On (Tapping Untapped Resources Now Or Never)
Area Planning for the Aging*

Developed by: Armand Lauffer, Roger Mills, Tom Morton

Players: 25-50

Time: 2½ hr.

For info, write:

*Tom Morton
Project T.A.P.
Univ of Mich
1015 E. Huron
Ann Arbor, Mi 48104*

*WHIPP (Why Housing Is a Problem and a Priority)

Simple look at causes underlying housing problems (Modified from Sitte-see Section VII)

Developed by: Barbara Steinwachs

Players: 15-30

Time: 2 hrs.

Copies of directions available at (\$5) each from:

WHIPP
3431 Mount Read Blvd.
Rochester, NY 14616

*Payment must accompany order.

II. DEVELOPED BY ACADEMIC GAMES ASSOCIATES, INC.

Democracy

Representative government
(Legislative process): composite
of 8 different games

Players: 6-11

Time: ½-4 hrs.

Complete kit (\$8) available from:

Bobbs Merrill Company
Education Division
4300 West 62nd Street
Indianapolis, IN 46268
(317) 291-3100

Economic System

Production, marketing, and
consumption

Players: 7-13

Time: 2-4 hrs.

Complete kit (\$25) available from:

Bobbs Merrill Company
Education Division
4300 West 62nd Street
Indianapolis, IN 46268
(317) 291-3100

Ghetto

Problems of the urban poor

Developed by: Dove Toll

Players: 7-20

Time: 1 hr. or more

Complete kit (\$24) available from:

Bobbs Merrill Company
Education Division
4300 West 62nd Street
Indianapolis, IN 46268
(317) 291-3100

Life Career

The implications of current
time allocation and other choices
for future career

Developed by: Sarane S. Boocock

Players: 2-20

Time: 1-6 hrs.

Complete kit (\$35) available from:

Bobbs Merrill Company
Education Division
4300 West 62nd Street
Indianapolis, IN 46268
(317) 291-3100

III. DEVELOPED BY BERKELEY GAMING PROJECT

El Barrio

The forces affecting a Latin immi-
grant to the big city in North
America

Developed by: Meier and Langdon

Players: 7-15 (9 optimum)

Time: 2-3 hrs.

Complete kit (\$15) available from:

Berkeley Gaming Project
Institute of Urban & Regional Developmen
316 Wurster Hall
University of California-Berkeley
Berkeley, CA 94720

Wildlife

The moose-beaver-wolf-vegetation
system of a national park

Developed by: Richard Meier

Players: 2-6 (3 optimum)

Time: 3-? hrs.

A pure simulation

Complete kit (\$15) available from:
Berkeley Gaming Project
Institute of Urban and Regional
Development
316 Wurster Hall
University of California-Berkeley
Berkeley, CA 94720

IV. DISTRIBUTED THROUGH INSTRUCTIONAL SIMULATIONS, INC.

Blight

Urban ecology

Players: 20-40

Time: 3-8 hrs.

Complete kit (\$42.50) available from:
Instructional Simulations, Inc.
2147 University Avenue
St. Paul, MN 55114

Campaign

State legislative races

Players: 23-40

Time: 10-12 hrs.

Complete kit (\$125) available from:
Instructional Simulations, Inc.
2147 University Avenue
St. Paul, MN 55114

F.L.I.P. (Family Life Income Patterns)

Family budgeting, investment, credit
and interest in terms of changing
family goals

Players: up to 30

Time: 2-8 hrs.

Complete kit (\$34) available from:
Instructional Simulations, Inc.
2147 University Avenue
St. Paul, MN 55114

Impact

Community action in problem-solving
situations

Players: 20-50

Time: 8-20 hrs.

Complete kit (\$160) available from:
Instructional Simulations, Inc.
2147 University Avenue
St. Paul, MN 55114

InForce

Criminal justice

Players: 25-35

Time: 8-20 hrs.

Complete kit (\$65) available from:
Instructional Simulations, Inc.
2147 University Avenue
St. Paul, MN 55114

Tracts

core city land use

Players: 20-40

Time: 2-8 hrs.

Complete kit (\$39.00) available from:
Instructional Simulations, Inc.
2147 University Avenue
St. Paul, MN 55114

Transit

Urban transportation

Players: 20-40

Time: 4-10 hrs.

Complete kit (\$42.50) available from:
Instructional Simulations, Inc.
2147 University Avenue
St. Paul, MN 55114

V. DISTRIBUTED THROUGH PSYCHOLOGY TODAY

Blacks and Whites
Racial conflict

Players: 3-9
Time: 1-2 hrs.

Complete kit (\$8) available from:
Educational Manpower, Inc.
Box 4272-B
Madison, WI 53711

Cities Game
Urban tension and negotiation

Players: 4-16
Time: 1-2 hrs.

Complete kit available in your local
bookstore and/or department store,
or from:
Psychology Today Games
De Mar, CA 92014

VI. DEVELOPED BY URBANDYNE

The Church Resources Game
The mission of the church and
resource utilization

Developed by: John-Robert McFarland
Players: 6-30
Time: 1-2 hrs.

Complete kit (9.95) available from:
Urbandyne
P.O. Box 134
Park Forest South, IL 60466
(312) 534-9028

or from: *Simulation Sharing Service*
(16.00) 221 Willey St.
Morgantown, W. Va. 26505

Edge City College
Strategies and processes of a
college or university

Players: 15-30
Time: 3-4 hrs.

Complete kit (\$35) available from:
Educational Manpower, Inc.
P.O. Box 4272-B
Madison, WI 53711

Urban Dynamics
Basic structures and interlocking
systems in the growth and develop-
ment of a metropolitan area

Players: 12-20
Time: 5-6 hrs.

Complete kit (\$95) available from:
Educational Manpower, Inc.
P. O. Box 4272-B
Madison, WI 53711

Audio-visual package on game
introduction and de-briefing also
available (\$15).

Youth Culture Game
"A total environment improvisa-
tional theater game"

Players: 20-80
Time: 2 hrs.

Complete instructions (\$15) available
from:
Educational Manpower, Inc.
P.O. Box 4272-B
Madison, WI 53711

VII. DEVELOPED BY WESTERN BEHAVIORAL SCIENCES INSTITUTE

BaFá BaFá: A Cross Culture Simulation Directions (\$3.50)

Interacting with another culture
or subculture

Developed by: R. Garry Shirts

Players: 18-36

Time: 1½ hrs.

Complete kit (\$20) available from:

Simile II

P. O. Box 1023

La Jolla, CA 92037

(714) 459-3719

Conflict

Disarmament and world peace

Developed by: Gerald Thorpe

Players: 27-42

Time: 5-8 periods of 50 min. each

Available 10/74 from:

Simile II

P. O. Box 1023

La Jolla, CA 92037

(714) 459-3719

Crisis

International conflict

Players: 18-36

Time: 2-4 hrs.

Sample set (\$3)

Student kit (\$35 or \$50) available from:

Simile II

P.O. Box 1023

La Jolla, CA 92037

(714) 459-3719

Metropolitics

Varying types of metropolitan
government

Players: 18-35

Time: 1-2 hrs.

Sample set (\$3)

Complete kit (\$25) available from:

Simile II

P. O. Box 1023

La Jolla, CA 92037

(714) 459-3719

Napoli (National POLitics)

Legislative process and represen-
tative nature of democracy

Players: 8-36

Time: 2-4 hrs.

Sample set (\$3)

Student kit (\$35 or \$50) available from:

Simile II

P.O. Box 1023

La Jolla, CA 92037

(714) 459-3719

Plans

Conflicting interest groups attempt
to change American society

Players: 12-36

Time: 3-8 hrs.

Sample set (\$3)

Student kit (\$35 or \$50) available from:

Simile II

P.O. Box 1023

La Jolla, CA 92037

(714) 459-3719

Police Patrol

Police problems and responsibilities

Developed by: Todd Clark

Players: 20-35

Time: 1 hr. or more

Complete kit (\$10) available from:

Simile II

P. O. Box 1023

La Jolla, CA 92037

(714) 459-3719

Sitte

Conflicting interest groups work
to change a city

Players: 10-30

Time: 2-4 hrs.

Sample set (\$3)

Student Kit (\$35 or \$50) available from:

Simile II

P. O. Box 1023

La Jolla, CA 92037

(714) 459-3719

Starpower

The uses of power

Developed by: R. Garry Shirts

Players: 15 or more

Time: 2 hrs.

Directions (\$3)

Student kit (\$25) available from:

Simile II

P. O. Box 1023

La Jolla, CA 92037

(714) 459-3719

VIII. MISCELLANEOUS

COG (Coalesce, Oppose, or Grapple)

Federal revenue sharing

Developed by: Phillip H. Gillispie,

Steven E. Greenfield, Phillip R.

Bratnober

Players: 15-50

Time: 2½ hrs.

Complete kit (\$25) available from:

j j mar-tam & associates

1053 Delamont Avenue

Schenectady, NY 12307

Consensus

Presidential electoral strategy

Developed by: John Reed Koza

Players: 2-4

Time: 2 hrs. or more

Complete kit (\$7.95) available from:

Scientific Game Development Corp.

Box 427

Ann Arbor, MI 48107

Dirty Water

Water pollution and ecological
balance

Developed by: Judith Anderson,

Helen Trilling, Roger Moody,

and Rich Rosen

Players: 2-4

Time: 1-2 hrs.

Complete kit (\$10) available from:

Damon Educational Division

80 Wilson Way

Westwood, MA 02090

Ecology

Bringing population, technology,
and natural environment into
workable balance

Players: 2-4

Time: about 2 hrs.

Complete kit (\$10) available from:

Damon Educational Division

80 Wilson Way

Westwood, MA 02090

Election

Democratic process and presidential elective system
(1-9 games)

Complete kit (\$5.95 each) available from:
Educational Games Company
Box 363
Peekskill, NY 10566

Futures

Cross-impact of possible future developments

Developed by: Olaf Helmer, T. J. Gordon, and Hans Goldschmidt

Players: 4-12

Time: 1 hr.

Kits are currently "out of print."

For information contact:

Olaf Helmer and Theodore
Institute for the Future
Riverview Center
Middletown, CT 06457

The Inter-Nation Simulation

National politics and international relations

Developed by: Harold Guetzkow

Adapted by: Cleo H. Cherryholmes

Players: 15-48

Time: several 50 minute sessions
or fewer longer sessions

Complete high school or college kit and manuals available from:

Science Research Associates, Inc.
259 East Erie Street
Chicago, IL 60611

Lobbying Game

Lobbying process in state legislature

Developed by: David Williams and Stanley Blostein

Players: 20-60

Time: 2½-5 hrs.

Complete kit available from:

Games Group II
P. O. Box 2088
Brandeis University
Waltham, MA 02154

or from (\$75):

Gamed Simulations, Inc. (GSI)
FDR Station
Box 1747
New York, NY 10022

The Marriage Game

Understanding marital decision making

Developed by: Cathy Greenblat,
Peter J. Stein, Norman F.
Washburne

Players: 2 or more (Played in pairs)

Time: 7-10 rounds of 50 minutes each

Available for \$4.95 from:

Random House
201 E. 50th Street
New York, NY 10022

Order Code: 31678

New Town

New Community development

Developed by: Barry Ross Lawson

Players: 3-20

Time: 1½ hrs. or more, depending
on version played.

Kits at varying levels of complexity available from:

Harwell Associates, Inc.
P. O. Box 34
Berkeley Heights, NJ 07922

The Poverty Game

The dynamics of poverty in affluence

Developed by: Jim Egbert

Players: 10 or more

Time: less than 1 hr.

For Directions contact:

Colloquy Magazine
1505 Race Street
Philadelphia, PA 19102
(March 1969 issue-50¢)

or

United Church Press
391 Steel Way
Lancaster, PA

The Road Game

Competition and cooperation,
communication and conflict
resolution

Developed by: Barbara Ellis Long
and Thomas E. Linehan

Players: 16-24 (more ok)

Time: 1½ hrs.

Game published by:

Herder and Herder
232 Madison Avenue
New York, NY

But See Appendix, Item VIII, 3rd entry.

Serfdom

Roles and goals imposed on
individuals and groups by the
system; a simulation in class
achievement and organizational
structuring

Developed by: Pat Bidol, Ann
Kraemer, Ginny Stewart, and
Fr. James Trent

Players: 21 or more (27 optimum)

Time: 1½ hrs.

Available (50¢) from:

Simulation Games Center
221 Willey Street
Morgantown, WV 26503

PLEASE SEND LARGE SELF-ADDRESSED ENVELOPE

or from:

People Acting for Change Together
163 Madison
Detroit, MI 48226

Square Mile

Land development

Players: 2-4

Complete kit available from:

Milton Bradley Company
Springfield, MA

U-DIG (Urban Development Investment Game)

Residential development in an
urban neighborhood

Developed by: Ervin J. Bell

Players: 4-16 optimum

Time: 3-5 hrs. for basic time.

Variations may then be played.

Information may be obtained from:

Ervin J. Bell
Associate Professor of Design
College of Environmental Design
University of Colorado
Boulder, CO

Welfare Week

Living on a welfare food budget
and confronting welfare-related
problems

Originally developed by: The
Berea Presbyterian Church,
St. Louis, MO

Players: one or more households

Time: a one-week living experience

Instructions and forms (\$25)

available from:

Gamed Simulations, Inc. (GSI)

FDR Station

Box 1747

New York, NY 10022

Yes, But Not Here

The poverty and isolation of the
elderly in affluent suburban com-
munities

Available from:

The Macmillan Company

School Division

Department SNY

Riverside, NJ 08075

IX. COMPUTERIZED GAMING/SIMULATIONS

City I

Economic, political, and social
interaction towards a developing
city

Developed by: Peter House

Players: 25-100

Time: 1 day or more

Computer Needed: IBM 1130 (min, 8K
core storage, single disk drive)

Although a workable game of substantial
quality and character, City I is not
available through any formal distribu-
tion mechanism. Universities known
to be using the Model in some form
are, among others:

Howard University (Washington DC)

University of Michigan (Ann Arbor)

*M.E.T.R.O. - APEX

Physical and economic development
of a metropolitan area, with
emphasis on air pollution control

Developed by: Richard D. Duke, in
collaboration with staff of
Environmental Simulation Labora-
tory

Players: 30-60 optimum, but fewer
or more ok

Time: several cycles of 4-5 hrs.
each

Computer Needed: IBM 1130 (min, 8K
core storage single disk drive)
or 360-370 (min, 360-40; 256K, but
128K is possible)

Computer program costs and training fees

available on request from:

Extension Gaming Service

412 Maynard Street

Ann Arbor, MI 48104

User forms: multiple copies must be
made from the following ERIC publica-
tion: Coding Instructions, Worksheets,
and Keypunch Sheets for METRO-APEX Sim-
ulation (Ed 075261)

Manuals available from: ERIC Document Reproduction Service, Leasco Information Products, Inc., P. O. Drawer O, Bethesda, Maryland 20014; (900) 656-9723. Each is available for \$.65 in microfiche, or \$3.29 in hard copy. (Vol. 2¹ only: \$6.58.) Orders must be placed under the following ED numbers:

ED 064 530 - Vol. 1, Game Director's Manual
ED 064 531 - Vol. 2, Computer Operator's Manual for IBM 1130
ED 064 532 - Vol. 3, Air Pollution Control Officer's Manual
ED 064 533 - Vol. 4, City Politicians' Manual
ED 064 534 - Vol. 5, County Politicians' Manual
ED 064 535 - Vol. 6, Industrialist 1
ED 064 536 - Vol. 7, Industrialist 2
ED 064 537 - Vol. 8, Industrialist 3
ED 064 538 - Vol. 9, Industrialist 5
ED 064 539 - Vol. 10, Industrialist 6
ED 064 540 - Vol. 11, Developer 1
ED 064 541 - Vol. 12, Developer 2
ED 064 542 - Vol. 13, Developer 3
ED 064 543 - Vol. 14, Developer 4
ED 064 544 - Vol. 15, Developer 5
ED 064 545 - Vol. 16, Developer 6
ED 064 546 - Vol. 17, Developer 7
ED 064 547 - Vol. 18, City Planner's Manual
ED 064 548 - Vol. 19, County Planner's Manual
ED 064 549 - Vol. 20, Reference Materials
ED 064 550 - Vol. 21, Legal References--Air Pollution Control Regulations
ED 075 261 - Coding Instructions, Worksheets, and Keypunch Sheets
ED 081 619 - Computer Operator's Manual for IBM OS/360

*Metropolis

Metropolitan growth and development, with emphasis on capital budgeting and public expenditure

Developed by: Richard D. Duke
Players: 9 is best for one game;
2 or 3 games ("cities") can be run simultaneously

Time: several cycles of about 1 hr. each

Computer Needed: IBM 1130 (min. 8K core storage, single disk drive) is most convenient, but IBM 360/370 version is available.

One loaded disk and operator's instructions available for \$200 from:

Urbex Affiliates, Inc.
P. O. Box 2198
Ann Arbor, MI 48106
(313) 971-0919

1130 version - only one available.
Program in card form available at reduced price.

Computer and manual version available from:

Sage Publications, Inc.
P. O. Box 776
Beverly Hills, CA 90210

Vol. I Instructor's Manual \$4.95
Vol. II Participant's Manual \$2.95

*Policyplan: See Section I

River Basin Model

An extension of City IV (see City I above), this version is based on a large city and its surrounding watershed.

Developed by: Peter House and staff

Players: 20-120

Time: 1 day or, preferably, longer

Computer Needed: Standard program distributed requires IBM 360/370 with 190K partition under OS and a dedicated disk pack. Contact regional centers or EPA for information about other possible configurations.

For further information regarding the gaming/simulation or a run of it, contact:

Environmental Protection Agency
Environmental Studies Division
Room 1021
Crystal Mall-Building 2
Washington, DC 20460

or one of the universities below:

One university in each of ten federal regional districts in the United States has been disseminating information about the River Basin Model. They are:

REGION I (Maine, N.H., Vt., Mass., Conn., R.I.):

John W. Sommer/Department of Geog. Dartmouth College/Hanover, NH/(603) 646-3117

REGION II (N.Y., Virgin Island, P.R., Puerto Rico):

Prof. Myron Uretsky/New York Univ./Graduate School of Bus. Ad./100
Trinity Place/New York, NY 10026/(212) 732-5820

REGION III (Pa., Md., Del., W.Va., Va.):

W. L. Garrison/Environmental Systems Engineering/School of Engineering/
University of Pittsburgh/Pittsburgh, PA 15213/(412) 621-3500 X6338

REGION IV (Ky., Tenn., N.C., S.C., Ga., Ala., Miss., Fla.):

Michael D. Kennedy/College of Architecture/Pence Hall/University of
Kentucky/Lexington, KY 40506/(606) 257-1881

REGION V (Ohio, Ind., Ill., Mich., Wisc., Minn.):

Allan G. Feldt, Environmental Simulation Lab./School of Natural Resources/
University of Michigan/Ann Arbor, MI 48104/

REGION VI (Ark., La., Tex., Okl., N.Mex.):

Luis H. Summers/University of Oklahoma/180 W. Brooks Street/Room 252/
Norman, OK 73069/(405) 325-5761

REGION VII (Iowa, Mo., Kans., Neb.):

Gerald L. Esterson/Department of Chemical Engineering/School of Engineering
and Applied Science/Washington University/St. Louis, MO 63130/
(314) 863-0100 X4017

REGION VIII (N.Dak., S.Dak., Mont., Wy., Col., Utah):

Dr. Leon Osterweil/Department of Computer Science/University of
Colorado/Boulder, CO 80302/(303) 443-2211 X6902

REGION IX (Ariz., Nev., Ca., Hawaii, Guam):

Dr. Stephen F. McCormick/Institute for Educational Computing/Claremont
Colleges/McConnell Center/Pitzer College/Claremont, CA 91711/
(714) 626-8511 X3312

REGION X (Idaho, Wash., Oreg., Alaska):

Dr. Edgar M. Horwood/Dept. of Urban Planning and Civil Engineering/
Urban Transportation Program, FV-10/University of Washington/ Seattle,
WA 98195/(206) 543-7331

APPENDIX

1. The second (revised) edition of the annotated (and rather complete) Guide to Simulation Games for Education and Training (Zuckerman and Horn, ed.) may be obtained for \$15 from Information Resources, Inc./P. O. Box 417/ Lexington, MA 02173.

Werner and Werner's Bibliography of Simulations: Social Systems and Education (Western Behavioral Sciences Institute/1150 Silverado/La Jolla, CA) is a very complete book and periodical listing, but through January 1969 only. 178 pp. \$4.00.

Learning with Games, ed. Cheryl L. Charles and Ronald Stadsklev, describes and analyzes seventy social studies educational games and simulations. Also contains an extensive list of sources and resources. \$4.95. All orders must be prepaid unless accompanied by an institutional purchase order. Available from: SSEC Publications/855 Broadway/Boulder, CO 80302.

Handbook of Simulation Gaming in Social Education, ed. Ron Stadsklev, will be available (~~\$10.50~~) from Institute of Higher Education Research Services/ Box 6293/University, Alabama 35486. Extensive game Directory Section with practical critiques, together with Textbook Section on the theory, use and design of games.

- II. Contemporary Games, ed. Jean Belch. Gale Research Co./Book Tower/Detroit, Mi. 48226. Directory: 835. Bibliography: 825.
Simulation/Gaming/News is an informative and entertaining five-times-a-year newspaper covering the latest developments in simulations and games. Available for \$4 per year from S/G/N, Box 3039/University Station/Moscow, ID 83843.

Simulation Sharing Service is an ecumenical service to promote the use of simulation/gaming in the church's ministry. Newsletter features in-depth information on a number of relevant games, often of low-cost. \$5 for ten issues from 221 Willey Street/Morgantown, WV 26505.

- III. Some publications which regularly include new developments in gaming and/or simulations among their practical offerings are:

Classroom Games Sharing Service/Box 524/Petaluma, CA 94952 (\$5 per year)

Media and Methods/134 N. 13th Street/Philadelphia, PA 19107 (\$7 per year)

Media Mix: Ideas and Resources for Education/221 W. Madison St./Chicago, IL 60606 (\$5 per year)

- IV. Some sources of Games for Elementary and High School Use

A. From those already listed:

Bobbs Merrill Company (Section II)

Damon/Educational Division (Section VIII)

Educational Games Company (Section VIII)

Educational Manpower Inc. (Section VI)

Harwell Associates, Inc. (Section VIII)
Instructional Simulations, Inc. (Section IV)
Simile II (Section VII)
United Church Press (Section VIII)
Urbandyne (Section VI)

B. A few others:

ABT Associates, or Games Central/55 Wheeler Street/Cambridge, MA 02138
Coca-Cola Bottling Company/Call your local distributor for "Man in His Environment" kit.
Creative Publications/P. O. Box 328/ Palo Alto, CA 94302
Edu-Game (Creative Classroom Activities)/P. O. Box 114/Sun Valley, CA 91352
Environmental Design/P. O. Box 683/Chatsworth, CA 91311
Interact/P. O. Box 262/Lakeside, CA 92040
The Macmillan Company/School Division/Dept. SNY/Riverside, NJ 08075
Pennant Educational Materials/4680 Alvarado Canyon Road/San Diego, CA 92120
Science Research Associates, Inc./259 E. Erie Street/Chicago, IL 60611
Scott Foresman and Company/1900 East Lake Ave./Glenview, IL 60025
SSEC Publications/855 Broadway/Boulder, CO 80302

C. Also see: Items I, V and VIII (this appendix).

V. WFF 'N PROOF Publishers offer a number of games which make the learning of logic, mathematics, language, science, and critical analysis genuinely fun. Their emphasis is not on what to think, but how to think. Included are WFF 'N PROOF (\$8), Equations (\$5), On-Sets (\$5), Queries 'n Theories (\$8), On-Words (\$5), The Propaganda Game (\$6), and others. Available from: WFF 'N PROOF/111-GU Maple Ave./Turtle Creek, PA 15145.

VI. A wide variety of games for specific (and sometimes limited) purposes has been designed by ABT Associates, Inc. Some are available for public use, some not. Information may be obtained from: Games Central/55 Wheeler Street/Cambridge, MA 02138.

VII. The Business Games Handbook (by Robert G. Graham and Clifford F. Gray, American Management Association, Inc., 1969) contains related readings and descriptions of a large number of games useful within business and industry.

VIII. Some sources of information on Peace/War/Global Issues Gaming/Simulations:

Ways and Means of Teaching about World Order: No. 8 (Winter 1972): "Simulating for Peace" lists five simulation games focusing on conflict in the international system. (Prepared by the School Program of the World Law Fund/11 West 42nd St./New York, NY 10036).

Teaching about War and Its Control: A Selective Annotated Bibliography for the Social Studies Teacher, (William A. Nesbitt, ed., 1972) contains games among its many listed resources. (Available from The University of The State of New York/The State Education Depart./Center for International Programs and Comparative Studies/Albany, NY 12224.)

"Teaching Global Issues through Simulation: It can Be Easy," ed. William A. Nesbitt, is Issue #75 of Intercom, published by the Center for War/Peace Studies, 218 E. 18 Street, New York, NY 10003. Subscription rates vary; single issues \$1.50. This issue offers an excellent, readable introduction to using games, particularly within the classroom. Coverage is basic yet comprehensive, including some in-depth discussion of such matters as competition vs. cooperation, etc. Complete instructions for Barbara Ellis Long's "The Road Game" included; also descriptions of thirteen "global issues" games. Application to global issues is present throughout as well, but on the whole is incidental to the main thrust: beginning to use games.

- IX. Pfeiffer and Jones are the editors of A Handbook of Structured Experiences for Human Relations Training, a collection of group process and/or sensitivity-type exercises. Most of them can be utilized within a short time span. (University Associates/P. O. Box 80637/San Diego, CA 92138). Four volumes @ \$4.00 each.
- X. Margaret Warne Monroe has adapted "Policy Negotiations" (See Section I) to four urban problem areas. Urban Games: Four Case Studies in Urban Development illustrates with clarity how "Policy Negotiations" can be utilized as an analytic tool, and then as a planning tool, for any specific social problem. Operator's Manual and Player's Manual available from: Urbex Affiliates, Inc./P. O. Box 2198/Ann Arbor, MI 48106. (Game Operator's manual: \$4, Player's manual: \$3; Set of one Operator's and ten Player's manuals: \$29).
- XI. Pennant Educational Materials (4680 Alvarado Canyon Road/San Diego, CA 92120/(714) 282-8101) offers a variety of short value games for children and adults.
- XII. An instantly-involving and fun game simulating the process of reading and presenting a "6:00 News Program" has been developed by Bob Wesolowski and U-M colleagues (3805 Greenbriar #310-C/Ann Arbor, MI 48105/(313) 662-3952). Applicable to composition writing, public speaking, radio and TV programming and filming, etc. Adaptable to exploration of one or more specific content areas.